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Science

Applied Optics

CUMULATIVE INDEX

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1962–1973

Applied Optics

CUMULATIVE INDEX

VOLUMES 1–12
1962–1973

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Preface

This Cumulative Index has been prepared to help users of *Applied Optics* find material in the first twelve volumes of the journal. Basically the subject index is user oriented in that material is listed where a user might look under a topic. The system used developed during the years with interactions of authors, editorial staff, printer, and readers. One of the most helpful contributions to the index has been the suggestions of authors on an aid-to-indexing form. There are from one to many different entries for a given article to give specific identification of the material in an article. Hence with frequent multiple listings the likelihood of finding material is increased by listing under alternate subject entries, under such headings as the subject, the instrument, the property of the material, the material measured, the location of the measurement and its application. However, no completely consistent index is possible. The growth of optics during these years with new fields, the change of language and terminology, and the new applications are reflected in the subject matter and therefore in the annual indexes of the journal. An effort has been made to combine these annual indexes with editing and cross referencing. Unlike the current index (starting in 1974), which is now prepared using the advantages and limitations of a computer and magnetic recording, each entry in the Cumulative Index has been individually phrased to use the minimum number of words, with the words in an entry arranged for rapid scanning, including the use of subheadings.

To aid in identification of the material usually letters are given with the following meanings: (L), (M), (N), (B), (P), (R) indicate: (L) Letter to the Editor or in one of the departments; (M) meeting report; (N) notes in one of the departments and not in a regular article; (B) book or book review; (P) patent; (E), (T), (TE) indicate the article is experimental, theoretical, or both; (R) indicates a review article.

The author index has the title given under the first author only, but volume and page are given under secondary authors. Under a given author all entries are alphabetized under first word of title, irrespective of whether there are additional authors.

Franklin S. Harris, Jr.

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ACCG Conference on Crystal Growth, NBS, 11–13 August 1969, **8:** 2518
Accuracy in Spectrophotometry and Luminescence Measurement, Washington, D.C., 22–24 March 1972, **11:** 1664
Acoustical Holography, International Symposium, Huntington Beach
  1st, 14–15 December 1967, **7:** 641
  2nd, 6–7 March 1969, **8:** 1662
Aerosols, Conference on Optical Properties of, New York U., 15–17 October 1964, **4:** 398
Aerospace and Navigational Electronics, 9th East Coast Conf., Baltimore, October 1963, **2:** 410
AFCRL Scientific Balloon Symposium Wentworth
  4th, 12–14 September 1966, **6:** 238
  6th, 8–10 June 1970, **9:** 2407
  7th, 25–27 September 1972, **12:** 161
AFOSR, 8th Annual Summer Scientific Seminar, Cloudcroft, 17–28 June 1963, **2:** 1232
AIAA Fluid and Plasma Dynamics 5th Conference, Boston, 26–28 June 1972, **11:** 2398
AIC Colour 73: 2nd Congress Association Internationale de la Couleur. U. of York, 2–6 July 1973, **12:** 2221
All-India Spectroscopy Institute, Panjab U., 25 May-14 June 1970, **10:** 694
All-Union Holography School, Third, Ulianovsk, 25–30 January 1971, **10:** 1703
American Astronomical Society
  116th Meeting, Flagstaff, 24–27 June 1964, **3:** 1400
  133rd Meeting, Tampa, 6–9 December 1970, **10:** 696
  140th Meeting, Ohio State U., 25–28 June 1973, **12:** 2222
American Ceramic Society
  See Glass Division of
American Congress of Surveyors and Mappers and American Society of Photogrammetry, Annual Meeting, Washington, D.C.
  11–17 March 1962, **1:** 541
  24–29 March 1963, **2:** 826
  6–11 March 1966, **5:** 983
  5–10 March 1967, **6:** 1562
  10–15 March 1968, **7:** 1285
  9–11 June 1969, **8:** 1964
American Meteorological Society
  Applied Meteorology, 6th Conference with AIAA, Los Angeles, 28–31 March 1966, **5:** 1198
  Dynamics of the Mesosphere and Lower Thermosphere, Symposium, Boulder, 15–18 June 1970, **9:** 2609
American Physical Society
  Optical Maser Symposium, New York, 24 January 1962, **1:** 383
  Washington, D.C., 23–27 April 1962, **1:** 642
  Stanford, 1962 Winter, **2:** 508
  Toronto, 21–23 June 1967, **6:** 1595
  New York Section, SUNY–Binghampton, 11–12 April 1969, **8:** 1694
  New York Section, Rochester, 6–7 October 1972, **12:** 439
American Vacuum Society, National Vacuum Symposium
  15th, Pittsburgh, 29 October–1 November 1968, **8:** 1167
  17th, Washington, D.C., 20–23 October 1970, **10:** 385
Analytical Chemistry and Applied Spectroscopy, Pittsburgh Conference
  14th, 4–8 March 1963, **2:** 706
  15th, 2–6 March 1964, **3:** 858
  16th, 1–5 March 1965, **5:** 96
  17th, 21–25 February 1966, **5:** 984
  19th, 3–8 March 1968, **7:** 1442
  20th, 2–7 March 1969, **8:** 1662
  21st, 1–6 March 1970, **9:** 1500
Analytical Chemistry, International Symposium, 21–25 July 1969, Birmingham, **8:** 2496
Applications of Coherent Light, ICO Symposium, 23–27 September 1968, Florence, **8:** 864
Applications of Geometrical Optics, SPIE Seminar, San Diego, 27–29 August 1973, **12:** 2993
Applications of X-ray Analysis, Annual Conference, Denver
  9–11 August 1967, **6:** 2078
  21–23 August 1968, **8:** 116
  2–4 August 1972, **11:** 2724
Association for Research in Ophthalmology, Annual Meeting, 24–26 October 1968, **8:** 865
Astronautical Federation, International Congress, Athens, 13–18 September 1965, **5:** 240
Astrophysical Colloquium, U. Liege
  11th, 9–11 July 1962, **2:** 271
  12th, 24–26 June 1963, **3:** 44
Atmospheric Infrared Radiation Problems, Symposium, München, 19–20 March 1964, **3:** 961
Atmospheric Limitations to Optical Propagation, Conference, Boulder, 18–19 March 1965, **4:** 657
Atmospheric Optics and Actinometry, 8th Conference, Tomsk, 22 June–1 July 1970, **10:** 227
Atmospheric Physics, APS-NYS Fall Meeting on, Rochester, 6–7 October 1972, **12:** 439
Atmospheric Radiation Conference, Colorado State U., 7–9 August 1972, **12:** 159
Atmospheric Sciences and Oceanography of Solar and Terrestrial Radiation Energy Transfer, Conference on Present-Day Aspects, Newport, 10–11 October 1963, **3:** 516
Atomic Absorption Spectroscopy, International Conference, Sheffield, 14–17 July 1969, **8:** 2375
Atomic Physics, 3rd International Conference, Boulder, 7–11 August 1972, **12:** 912
Atomic Spectra and Radiation Processes, Conference, Oxford, 12–14 April 1965, **4:** 890
Atomic Spectroscopy Symposium
  Argonne, 7–9 June 1961, **1:** 80
  NBS, 11–14 September 1967, **7:** 450
Audiovisual Imaging Systems, SPSE Seminar, New York, 23–24 September 1971, **11:** 210
Australian Spectroscopy Conference
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Automatic Image Analysis Seminar, Chicago, 22 May 1970, **9:** 2215
Beam Foil Spectroscopy International Conference, U. Arizona
  20–22 November 1967, **7:** 631
  2–6 October 1972, **12:** 438
Biocular Systems, OSA Topical Meeting on the Design and Visual Interface of, Annapolis, 24–25 May 1972, **11:** 2395
Biomedical Sciences Instrumentation Symposium, 7th Annual, U. Michigan, 19–22 May 1969, **8:** 2300
Canadian Association for Applied Spectroscopy, National Symposia
  18–20 October 1965, **5:** 300
  24–26 October 1966, **6:** 591
Characterization of Materials, 2nd Conference, Rochester, 8–10 November 1967, **7:** 757

Chemical Analysis and the Durability of Glass, Symposium on New Methods, U. Sheffield, 24–26 November 1964, **4:** 404
Chemical and Molecular Lasers, 3rd Conference, St. Louis, 1–2 May 1972, **11:** 2113
Chemistry and Spectroscopy, Pacific Conference
  San Francisco, 6–8 November 1968, **8:** 912
  Anaheim, 6–10 October 1969, **9:** 975
Climatic Impact Assessment Program, Cambridge Conference
  15–16 February 1972, **11:** 1283
  14–17 November 1972, **12:** 932
Coherence and Quantum Optics, 3rd Rochester Conference, 21–23 June 1972, **11:** 3010
Coherent Optics and Instrumentation Symposium, Oakland U., 17–18 April 1969, **8:** 1353
Colloque d'Optique, Quebec, 6–8 September 1967, **7:** 757
Colloquium Spectroscopicum Internationale XVI, Heidelberg, 4–11 October 1971, **11:** 707
Color Aerial Photography, Joint ASP/SPSE Seminar on New Horizons in, New York, 9–11 June 1969, **8:** 1964
Color Council meetings
  See Inter-Society Color Council
Color, International Meeting, Lucerne, 1–4 June 1965, **5:** 85
Color Photographic Systems, SPSE Symposium, Washington, D.C., 17–19 October 1963, **3:** 238
Columbus Meeting
  See Molecular Structure and Spectroscopy Symposium
Commission Internationale de l'Eclairage, Barcelona, 8–15 September 1971, **11:** 1888
Computerized Imaging Techniques, SPIE Seminar, Washington, D.C., 26–27 June 1967, **6:** 2023
Conference on Laser Engineering and Applications (CLEA), OSE/IEEE, Washington, D.C., **6:** 2024; **10:** 1195; **10:** 2201; **11:** 231
Critical Evaluation of Chemical and Physical Structural Information, Conference, Dartmouth College, 24–29 June 1973, **12:** 2220
Cryogenics and Infrared Detection Systems, Technical Colloquium, Frankfurt-am-Main, 17–18 April 1969, **8:** 1956
Crystal Growth, International Conference
  Boston, 20–24 June 1966, **5:** 1692
  Birmingham, 14–19 July 1968, **8:** 862
Crystallography, 7th International Congress, Moscow, 12–19 July 1966, **5:** 1866
Deutsche Gesellschaft fuer angewandte Optik
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Eastern Analytical Symposium, New York
  11–13 November 1964, **4:** 398
  17–19 November 1965, **5:** 1190
  13–15 November 1968, **8:** 912
Electrochemical Society, Washington, D.C.
  Infrared Excited Visible Luminescence Symposium, 9–13 May 1971, **10:** 1996
  New Techniques for Materials Characterization Joint Symposium, 9–14 May 1971, **10:** 2202
Electrography—Electronic Hardcopy, IEEE International Convention, New York, 23 March 1970, **9:** 1952
Electromagnetic Scattering, Interdisciplinary Conference, Amherst, 28–30 June 1965, **5:** 92
Electromagnetic Sensing of the Earth, International Symposium, Miami, 22–24 November 1965, **5:** 983
Electromagnetic Waves and Antennas, URSI International Symposium, Copenhagen, June 1962, **2:** 236
Electronic Imaging Techniques Seminar-in-Depth, SPIE Third Annual, Los Angeles, 26–27 April 1965, **5:** 134
Electronic Processes in Low Mobility Solids, U. Sheffield, 18–20 April 1966, **5:** 1302
Electronics, Optical and Magnetic Materials, Recent Advances in, 14th Annual Conference of the Electronics Materials Committee of the AIME Metallurgical Society, Boston, 28–30 August 1972, **11:** 3013
Electron, Ion, and Laser Beam Technology, IEEE Annual Symposium
  Ann Arbor, 6–8 April 1966, **5:** 1296
  Berkeley, 9–11 May 1967, **7:** 449
Electron Microprobe Analysis National Conference
  Chicago, 31 July–2 August 1968, **8:** 862
  Pasadena, 16–18 July 1969, **8:** 2376
Electron–Nuclear Hyperfine Interactions in Spectroscopy, International Conference, Wellington, 17–21 October 1966, **6:** 830
Electron Spin Resonance Spectroscopy Symposium, Michigan State U., 1–3 August 1966, **5:** 1890
Electrooptic and Laser Equipment Exhibition, U.S. Trade Center, London, 13–17 November 1972, **12:** 915
Electrooptics: Principles and Applications, SPIE Seminar-in-Depth, Boston, 30 April–2 May 1973, **12:** 2012
Electrooptic Systems in Flow Measurement, Conference, U. Southampton, 25–26 September 1972, **12:** 160
Ellipsometer and Its Use in the Measurement of Surfaces and Thin Films, Symposium, NBS, 5–6 September 1963, **3:** 82
Engineering Applications of Lasers, Symposium, Tel Aviv, 29 June–1 July 1970, **10:** 227
Engineering in Medicine and Biology, 21st Annual Conference, Houston, 18–21 November 1968, **8:** 929
Engineering Uses of Holography, Symposium, U. Strathclyde, 17–20 September 1968, **8:** 146
Ernst Abbe Memorial Symposium, Aalen, 12–16 June 1973, **12:** 2219
EUCHEM Conference on Low Frequency Vibrational Spectroscopy, Versailles, 3–5 September 1969, **9:** 1951
Evaluation of Motion Degraded Images, NASA Seminar, 3–5 December 1968, **8:** 939; **8:** 1347
Exploding Wire Phenomena, 4th Conference, Boston, 18–20 October 1967, **7:** 281
Far Infrared Properties of Solids, NATO Advanced Study Institute on, Delft, 5–23 August 1968, **8:** 863
Far Infrared Spectroscopy, International Symposium, Cincinnati, 21–24 August 1962, **2:** 663
Far Infrared Symposium held as part of the 7th National Meeting of the Society of Applied Spectroscopy, Chicago, 13–17 May 1968, **7:** 2245
Fiber Optics: Applications and Technology, SPIE Seminar, Dallas, 28–29 January 1970, **9:** 1731
Filmed Data and Computers, SPIE Seminar-in-Depth, Boston, 13–14 June 1966, **5:** 1863
Flame Physics, Recent Developments, Imperial College, 30 April–1 May 1968, **7:** 1818
Fluorescence and the Colorimetry of Fluorescent Materials, ISCC Conference on, Williamsburg, 6–9 February 1972, **11:** 2110
Fourier Spectroscopy, International Conference on, Aspen, 16–20 March 1970, **9:** 2212
Fourier Transform Users Group 1st Meeting, Atlantic City, 1 November 1972, **12:** 914
Fundamental Radiometry for Experimental Scientists, Eppley Lecture Series, Newport, 11–19 October 1965, **5:** 506
Geomagnetic, URSI and certain professional groups of IRE, Austin, October 1961, **1:** 187
German Physical Society, Annual Meeting, Berlin 2–7 October 1967, **7:** 276
German Society for Applied Optics, Annual Meeting
  Braunschweig, 4–7 June 1963, **3:** 62
  Gmunden, 19–22 May 1964, **3:** 1292
  Berlin, 8–12 June 1965, **5:** 92
  Bamberg, 31 May–4 June 1966, **5:** 1694
  Baden, 4–7 June 1968, **8:** 83
  Luebeck, 27–30 May 1969, **8:** 2296
Glass Division, American Ceramic Society, Bedford Springs, Fall Meeting
  9–12 October 1963, **3:** 96
  12–14 October 1966, **6:** 330
Glass, International Congress
  6th, Washington, D.C., 8–14 July 1962, **2:** 604
  7th, Brussels, 27 June 1964–3 July, **5:** 85
Glass, Symposium on Inhomogeneity, U. Sheffield, 6–8 April 1965, **4:** 889
High Frequency Generation and Amplification, Devices and Applications Conference, Cornell U.
  29–31 August 1967, **7:** 35
  17–19 August 1971, **11:** 207
High Resolution Molecular Spectroscopy Colloquium, Dijon, 1–4 July 1969, **8:** 1974
High Resolution Spectroscopy and Solar Magnetic Fields, Symposium, Monte Carlo Observatory, Rome, 14–16 September 1964, **3:** 1434
High Resolution Spectroscopy Conferences in Czechoslovakia and the U.S.S.R., September 1972, **12:** 163
High Speed Photography, International Conference
  6th, Scheveningen, 15–22 September 1962, **2:** 570
  7th, Zurich, 12–15 September 1965, **5:** 200
  8th, Stockholm, 23–29 June 1968, **8:** 84
  9th, Denver, 2–7 August 1970, **10:** 228
  10th, Nice, 25–30 September 1972, **12:** 623
Holography and Optical Filtering, Conference, Huntsville, 24–25 May 1971, **10:** 2380
Holography and the Computer, Conference, Houston, 10–12 December 1969, **9:** 1498
Holography, 1st All-Union School, Moscow, 20–26 January 1969, **8:** 2281
Holography in Biomedical Research, 1st International Symposium, New York, 26–27 April 1973, **12:** 1735
Holography, Physical Principles of, 5th Soviet All-Union School, Akademgorodok, 29 January–3 February 1973, **12:** 2535
Holography Program, SAE Congress, Detroit, 8 January 1968, **7:** 642
Holography, SPIE Seminar-in-Depth
  San Francisco, 23–24 May 1968, **7:** 2284
  Merrimack, 14–15 April 1971, **10:** 1995
Holography, U.S.–Japan Seminar
  See U.S.–Japan Seminar
  Tokyo, 2–6 October 1967, **7:** 622
  Washington, D.C., 13–17 October 1969, **9:** 1496
Human in the Photooptical System, SPIE Seminar, New York, 25–26 April 1966, **5:** 1312
Hungarian Optical Conference, 2nd, Budapest, 6–9 May 1963, **2:** 962
Image Information Recovery, SPIE Seminar, Philadelphia, 24–25 October 1968, **8:** 865
Image Quality Evaluation, SPSE Seminar, Rochester, 14–15 September 1970, **10:** 230
Information Theory, International Symposium
  Brussels, 3–7 September 1962, **2:** 444
  Noordwijk, 15–19 June 1970, **9:** 2610
Infrared Discussion Group, 49th Meeting, U. Birmingham, 4 April 1966, **5:** 1292
Infrared Information Symposium, 6th National, Patrick AFB, 7–9 November 1961, **1:** 36
Infrared Radiation, 1st Czechoslovak Conference, Brno, November 1962, **2:** 603
Infrared Techniques, Joint Conference, U. Reading, 21–23 September 1971, **11:** 208
Institute of Environmental Sciences, 16th Annual Meeting, Boston, 12–16 April 1970, **9:** 1732
Instrumental Optics and Design: Meeting of the Optical Group of the Institute of Physics and the Physical Society, Chelsea College of Science and Technology, 19–21 September 1966, **6:** 322
Instrumentation in Astronomy, SPIE Seminar on, Tucson, 13–15 March 1972, **11:** 1663
Instrumentation Science Research Conference, William Smith College, Geneva, 2–6 August 1965, **4:** 1606
Instrument Society of America, 25th Conference, Philadelphia, 20–29 October, 1970, **10:** 444
Interference and Coherence, Conference, Sydney, 24–28 August 1964, **4:** 235
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  Washington, D.C., 21–23 April 1965, **4:** 1606
  Stuttgart, 20–22 April 1966, **5:** 1394
  Washington, D.C., 3–5 April 1968, **7:** 1818
  Amsterdam, 15–18 April 1969, **8:** 1705
Inter/Micro
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  London, 9–11 September 1969, **9:** 419
  Chicago, 29 June–2 July 1970, **9:** 2611
International Color Association, 1st Congress, Stockholm, 9–13 June 1969, **8:** 2299
International Society of Photogrammetry, 10th Congress, Lisbon, 19–26 September 1964, **4:** 658
Inter-Society Color Council and the Colour Group (Great Britain), Imperial College, 17 June 1969, **8:** 2128
Inter-Society Color Council, New York
  12–13 June 1967, **6:** 2022
  8–9 April 1968, **7:** 1312
  14–15 April 1969, **8:** 1348
Ionization Phenomena in Gases, International Conference
  Munich, 28 August–1 September 1961, **1:** 380
  Belgrade, 22–27 August 1965, **5:** 134
  Vienna, 27 August–2 September 1967, **7:** 36
  Bucharest, 1–6 September 1969, **9:** 1729
IRIS
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Laboratory Measurements of Aeronomic Interest, IASA Symposium, Toronto, 3–4 September 1968, **8:** 145

Laser Applications, Bendix Symposium, 30 July 1968, 8: 108
Laser Industry Association Convention, Los Angeles, 20–23 October 1969, 9: 437
Laser Power and Energy Measurements Seminar, NBS–Boulder, 4–5 December 1969, 9: 1731
Laser Radar Studies of the Atmosphere, 4th Conference, Tucson, 26–28 January 1972, 11: 965
Lasers and Applications, Ohio State U. Symposium, Columbus, November 1962, 2: 440
Lasers and Optoelectronics, Joint Conference, U. Southampton, 25–28 March 1969, 8: 1519
Lasers and Their Applications, International Conference
  London, 29 September–1 October 1964, 4: 58
  Dresden, 10–17 June 1970, 9: 2608
Lasers, Applications to Photography and Information Handling, New York, 25–26 April 1968, 7: 1442
Lasers, Scientific and Industrial Applications, National Physical Laboratory, Teddington, 23–24 April 1964, 8: 567
Lasers, Technical and Military Applications, s'Gravenhage, April 1962, 2: 430
Laser Technology Developments, SPIE Seminar, Rochester, 17–18 November 1969, 9: 1238
Lens Design with Large Computers, International Conference, Rochester, 5–8 July 1966, 5: 1864
Light Scattering in Solids, 2nd International Conference, U. Paris, 19–23 July 1971, 10: 2794
Liquid Crystal International Conference
  Kent State U., 12–16 August 1968, 8: 115
  Berlin, 24–28 August 1970, 10: 357
  Kent State U., 21–25 August 1972, 11: 3013
Low Light Level Systems, SPSE Seminar, New York, 19–20 March 1970, 9: 2212
Luminescence, International Conference
  New York, 9–13 October 1961, 1: 541
  Budapest, 23–30 August 1966, 6: 286
Magnetic Resonance and Relaxation, 14th Colloque Ampere—International Conference, Ljubljana, 5–10 September 1966, 6: 829
Magnetic Semiconductors, Symposium on, Yorktown Heights, 13–14 November 1969, 9: 438
Magnetics, International Conference
  See Intermag
Magnetism and Magnetic Materials, 14th Annual Conference, New York, 18–21 November 1968, 8: 930
Magnetism and Magnetic Materials, 15th Annual Conference, Philadelphia, 18–21 November 1969, 9: 1239
Magnetism, International Congress, Boston, 11–15 September 1967, 7: 48
Materials: Ceramic Microstructures, 3rd International Symposium, U. California, Berkeley, 12–16 June 1966, 5: 1862
Materials Research Symposium, NBS
  Molecular Dynamics and Structure of Solids, 16–19 October 1967, 7: 632
  Electronic Density of States, 3–6 November 1969, 9: 976
  Solid State Chemistry, 18–21 October 1971, 11: 963
Measurement Conference, 3rd International and the 6th International Instruments and Measurements Conference, Stockholm, 14–18 September 1964, 4: 58
Measurement Education, Conference on, U. Warwick, 8–10 July 1969, 8: 2332
Mechanical and Thermal Properties of Ceramics, Symposium, Gaithersburg, 1–2 April 1968, 7: 1810
Medical and Biological Engineering, 8th International Conference, 20–25 July 1969, 8: 2377
Meter, International Advisory Committee on the Definition of the
  Sevres, 8–10 October 1962, 2: 501
  Paris, 14–16 September 1970, 10: 695
Metrology Sessions at 24th Annual ISA Conference, Houston, 27–30 October 1969, 9: 1497
Micro———
  See Inter/Micro
  Chicago, 17–19 June 1964, 3: 1004
  U. Sheffield, 6–9 July 1965, 5: 420
Microelectronics, Uses of Optics in, OSA Topical Meeting, Las Vegas, 25–26 January 1971, 10: 1994
Microscope in Scientific Investigation, International Conference on the Role of the, Imperial College, 18–22 July 1966, 6: 238
Microscopy Symposium, International, Chicago, 15–19 August 1966, 6: 286
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Spectroscopy Symposium, Mid-America, Chicago
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Spectroscopy Symposium, Southeastern Annual, Gainesville
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SPE 1st Technical Conference on Photopolymers: Principles, Processes and Materials, Ellenville, 6–7 November 1967, **7:** 288
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Thermophysics Specialist Conference, Monterey, 13–15 September 1965, **5:** 479
Thin Film Physics, International Symposium on Basic Problems in, Clausthal and Göttingen, 6–11 September 1965, **5:** 21
Thin Films Conference of the Institute of Physics (Surfaces and Thin Films Group), 7th Annual, U. Lancaster, 9–11 April 1973, **12:** 2011
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